

Attorney Docket No. U0186 OS/MINPT
Serial No. 10/631,299
Art Unit: 1742
Reply to Office Action of December 21, 2004

REMARKS/ARGUMENTS

Amendments to the Claims

The claims are amended in the above Listing of Claims to cancel claims 4-8 and 13, as suggested by the Examiner in the subject Office Action under "Claim Objections". The amendments also cancel claims 17 and 18 due to the amendment of claim 14 to incorporate there subject matter. The amendment of the claims adds no new matter. Entry of the amendments to the claims is therefore, deemed appropriate and respectfully requested.

Claim 14 is amended to add the counter current flow feature and the single stripping stage feature to the process of this independent claim. The single stripping stage is supported by canceled claims 17 and 18. It is further supported, among others, in the specification at page 1, lines 23 and 24 and by the arrows associated with "Aqueous" and "Organic" in Figure 2. The countercurrent flow is also supported, among others, in the specification at page 1, lines 23 and 24 and by the arrows associated with "Aqueous" and "Organic" in Figure 2.

Rejections Under 35 USC 102(b) for Anticipation

(A) Claims 1-8, 10, -17 and 19-24 stand rejected over Domic et al. (US Patent No. 4,028,462).

The examiner refers to the embodiment of Figure 1 of the reference and to the text at col. 3, line 46 to col. 4, line 66 which: "for example teach a method and apparatus for countercurrent solvent extraction including three counter current reactors contacting at least two stripping stages for extraction of either copper or nickel values (see col. 4 lines 60-64 for example) and where the instantly recited compounds can be employed as the solvent extraction reagents (see col. 4 lines 55-61 for example) thereby showing all aspects of the claims." (emphasis added)

Applicant respectfully submits that the examiner's reference to Figure 1 of Domic et al. is incorrect for two reasons: (1) Figure 1, as shown by the arrows for Acl and Org, is clearly a co-current flow, that is both the aqueous leach solution and the organic solution are flowing through the system in the same direction and (2) Figure 1 shows three extraction stages and two stripping

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stages, instead of the currently claimed one stripping stage. The description of Figure 1 of Domic et al. is contained at col. 2, lines 1-15, under the heading "a. Co-current flow" which clearly states (line 3) that the flow of organic and aqueous fluids is in the same direction. It also clearly states (lines 10-12) that in the Ac2 stripping flow, there are two stripping elution reactors, designated El₁ and El₂. Thus, Applicant submits that Figure 1 of Domic et al. clearly does not anticipate applicant's claimed circuit having three counter current extraction stages and only one stripping stage.

Applicant notes that Figure 2 of Domic et al., on the other hand, discloses a three stage extraction circuit with counter current flow. This is described in Domic et al. at col. 2, lines 16-23, under the heading "b. Counter current flow". However, Figure 2 of Domic et al. also does not anticipate applicant's claimed circuit configuration because it shows two stripping stages (again labeled El₁ and El₂) instead of one as required in applicant's independent claims 1, 12 and 14.

Applicant also notes that the specification at col. 3, line 46, through col. 4, line 66, referenced by the examiner in the subject rejection concerns the invention of Domic et al. which is embodied in Figures 4-6 thereof. As described at col. 3, lines 62-64, and col. 4, lines 40-54, these figures show alternating means of loading and unloading which is not part of applicant's claimed invention.

Applicant, therefore, respectfully requests the withdrawal of the subject rejection for anticipation by Domic et al.

(B) Claims 1-15, 17-20 and 25 stand rejected over Lower. (US Patent No. 3,429,694) and Pang (US Patent No. 3,697,400).

The examiner states that both Lower, in the embodiment of Figure 1, and Pang, also in the embodiment of Figure 1, teach a method and apparatus for counter current solvent extraction of copper values comprising at least 3 counter current extraction stages, a wash, or filter stage and a strip stage, thereby showing all aspects of the above claims.

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Applicant respectfully traverses this rejection because applicant's claims do not state "at least three" extraction stages or "at least one" stripping stage. Rather applicants claims are to "three countercurrent extraction stages" and "one stripping stage". Figure 1 of Lower and Figure 1 of Pang, on the other hand, each show four extraction stages and four stripping stages.

Accordingly, neither Lower nor Pang anticipates applicant's independent claims 1, 12 and 14 and withdrawal of the subject rejection is respectfully solicited.

There are no further rejections in the subject Office Action. It is believed that the foregoing amendment to the specification and reply are completely responsive under 35 CFR 1.111 and that all grounds of rejection are completely avoided and/or overcome. Applicants therefore respectfully request that a timely Notice of Allowance be issued in this application.

The Examiner is requested to telephone the undersigned attorney if any further questions remain which can be resolved by a telephone interview.

Respectfully submitted,
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5/23/05
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